

REMARKS/ARGUMENTS

Reconsideration and withdrawal of the rejections of the application are respectfully requested in view of the amendments and remarks herewith, which place the application into condition for allowance. The present amendment is being made to facilitate prosecution of the application.

I. STATUS OF THE CLAIMS AND FORMAL MATTERS

Claims 1-10 and 29-42 are currently pending. Claims 1, 7, 10 and 35 are independent. Claims 7 and 35 are hereby amended. No new matter has been introduced. Support for this amendment is provided throughout the Specification as originally filed.

Changes to the claims are not made for the purpose of patentability within the meaning of 35 U.S.C. §101, §102, §103, or §112. Rather, these changes are made simply for clarification and to round out the scope of protection to which Applicants are entitled.

II. ALLOWABLE SUBJECT MATTER

Applicants thank the Examiner for noting that claims 7 and 35 recite allowable subject matter. Claims 7 and 35 have been written in independent form and are believed in condition for allowance.

III. REJECTIONS UNDER 35 U.S.C. §103

Claims 1, 2, 4, 6, 8, 10, 29-32, 34, 36 and 38-42 were rejected under 35 U.S.C. §103(a) as allegedly as allegedly unpatentable over U.S. Patent No. 6,263,023 to Ngai in view of U.S. Patent No. 5,623,615 to Salem;

Claims 5 and 33 were rejected under 35 U.S.C. §103(a) as allegedly unpatentable over Ngai and Salem further in view of U.S. Patent No. 5,532,744 to Akiwumi-Assani et al. (hereinafter, merely “Akiwumi-Assani”)

Claims 9 and 37 were rejected under 35 U.S.C. §103(a) as allegedly unpatentable over Ngai and Salem and further in view of U.S. Patent No. 5,510,842 to Phillips et al. (hereinafter, merely “Phillips”); and

Claims 3 was rejected under 35 U.S.C. §103(a) as allegedly unpatentable over Ngai in view of Salem and further in view of Official Notice.

Applicant respectfully traverses these rejections.

Independent claim 1, as amended, recites, *inter alia*:

“output control means for outputting, at an arbitrary playback speed, a picture corresponding to each of said plurality of coded streams of said speeded-up coded stream decoded by said plurality of decoding means.” (emphases added)

As understood by Applicant, Ngai discloses a video decoder for decoding data at a high rate uses a plurality of slower slice decoders. Slices are allocated to decoders in response to busy signals. Abstract. Decodes slices are placed in a buffer until a complete frame is accumulated. The complete frame can be displayed in a standard format compatible with supplied coded data. However, Ngai does not disclose that the display is output at an arbitrary playback speed.

Claim 1 recites, “output control means . . . outputting, at an arbitrary playback speed, a picture corresponding to each of said plurality of coded streams of said speeded-up coded stream decoded by said plurality of decoding means.” *See, for example*, FIGS. 25-29 and the associated descriptions in pars. [0195]-[0221].

The Office Action points to Ngai col. 4, lines 48-55 for disclosing an output means that outputs a picture from the plurality of coded streams of the speeded-up stream at an arbitrary playback speed. However, Ngai does not disclose playback at an arbitrary speed. However, Ngai discloses “[o]utput signal 38 from the synchronizer can notify a display generator that a complete frame of data is available for display. The format of the display may be NTSC, PAL, SECAM, HDTV or any other format compatible with the video data supplied.”

That is, Ngai discloses an output in various standard formats such as NTSC, PAL, etc. Indeed, at best the standard formats have a predetermined playback speed. These standard formats are not arbitrary playback speeds. Thus, Ngai clearly does not disclose an output control means for outputting playback at an arbitrary speed as recited in claim 1.

Salem, Akiwumi-Assani and Phillips do not add the feature missing from Ngai, as discussed above.

As discussed in the background of the present application, although the playback speed of conventional MPEG video decoders can be set to an arbitrary value by displaying I and P pictures repeatedly as many times as required, the motion of a displayed image becomes jerky. Another problem of the conventional MPEG video decoder is that a plurality of coded streams, which are input at the same time or which are included in a multi-channel multiplexed stream (transport stream) on which a plurality of channels of coded streams (elementary streams)

supplied by digital video broadcasting are multiplexed, cannot be decoded at the same time to output all of the plurality of channels of decoded video signals at the same time or to output a selected one of the decoded video signals.

The references fail to recognize the problems, discussed above, encountered when trying to alter the playback speed of the decoding apparatus such as shown in Ngai. Because of the relationship between the pictures in the MPEG coded stream, either only predetermined playback speeds are possible due to the particular relationship between locations of the I-pictures, P-pictures and B-pictures, or the motion of the displayed image becomes jerky.

Claim 1 is patentable over the Ngai, Salem, Akiwumi-Assani and Phillips because those references taken alone or in combination do not teach or suggest each and every limitation recited in the claim. In particular, the references do not teach or suggest, “output control means for outputting, at an arbitrary playback speed, a picture corresponding to each of said plurality of coded streams of said speeded-up coded stream decoded by said plurality of decoding means” as recited in claim 1.

For reasons similar or somewhat similar to those described above with regard to independent claim 1, independent claim 10 is also believed to be patentable.

IV. DEPENDENT CLAIMS

The other claims are dependent from one of the claims discussed above and are therefore believed patentable for at least the same reasons. Because each dependent claim is also deemed

to define an additional aspect of the invention, however, the individual reconsideration of the patentability of each on its own merits is respectfully requested.

CONCLUSION

Claims 1-10 and 29-42 are in condition for allowance. In the event the Examiner disagrees with any of statements appearing above with respect to the disclosure in the cited reference, or references, it is respectfully requested that the Examiner specifically indicate those portions of the reference, or references, providing the basis for a contrary view.

Please charge any additional fees that may be needed, and credit any overpayment, to our Deposit Account No. 50-0320.

In view of the foregoing amendments and remarks, it is believed that all of the claims in this application are patentable and Applicants respectfully request early passage to issue of the present application.

Respectfully submitted,

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